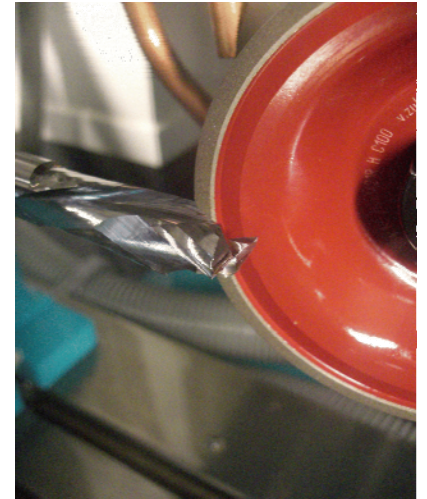
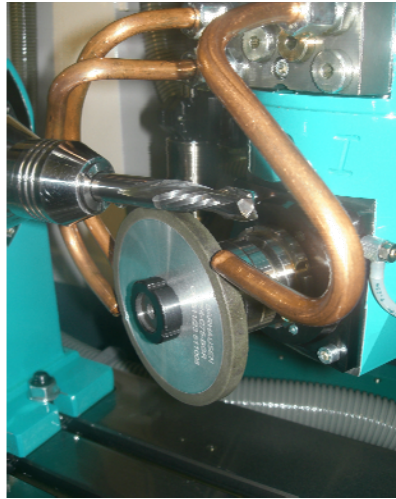


## UpDown Endmill Ø14 Z2+2

A16-010

The UpDown Endmill can be manufactured in one setup on an ARIES ENP5. The flute operations use a 1A1 wheel of diameter 100 mm - for the Up flute defined spindleside, for the Down flute defined userside and positioned under the tool.



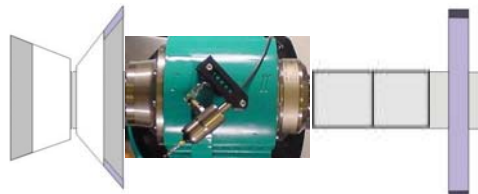
### 1. Cycletime for Production

<b>Workpiece:</b> Ø14 mm, Z 2, Length of cutting edge 40 mm, Helix angle 23° <b>Material</b> CARBIDE												
<b>Operations</b>												
	Probe	Flute Up	Flute Down	O.D.3 Up	O.D.2 Up	O.D.1 Up	O.D.3 Down	O.D.2 Down	O.D.1 Down	Gashing	End 2	End 1
Feed [mm/Min]	2000	80	50	180	120	200	180	120	200	100	70	100
Power [kW]		3	2	1	1	2	1	1	1	2	1	1
Cutting feed [m/s]		18	18	22	22	22	22	22	22	19	22	22
Used wheels												
	1	1	1	2	2	2	2	2	2	3	3	3
Grinding time [s]	14	52	177	88	36	28	221	88	71	65	35	29
Total cycle time	15 Min 2											

The cycle times are indicative. Material to be ground, grinding wheels, coolants can influence the cycle times considerably.

### 2. Used Grinding Wheels

1	1A1 Ø100 D64 X=8
2	11V9 Ø100 D64
3	12V9 Ø125 D64



2 3

1

### 3. Machine and Software Requirements

Machines: 5 axes CNC grinders : ARIES ENP5 Coolant: Synthetic Oil, pressure 6 bar

Control: Fanuc 310i

Software: Quinto 5

Accessories:

Responsible engineer: OP, 14.6.10

[www.schneeberger.ch](http://www.schneeberger.ch)

J. SCHNEEBERGER Maschinen AG 4914 Roggwil Switzerland

Subsidiaries in: France, Deutschland, Italia, United States, UK,